

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented) A method of regulating adenovirus packaging comprising the steps of:
 - (a) obtaining a helper adenovirus vector containing a first adenovirus packaging sequence comprising a repressor binding site;
 - (b) obtaining a DNA delivery adenovirus vector comprising 5' and 3' inverted terminal repeats; a second adenovirus packaging sequence; a heterologous gene; and a promoter operatively linked to the heterologous gene;
 - (c) propagating the helper adenovirus vector;
 - (d) propagating the DNA delivery adenovirus vector; and
 - (e) repressing packaging of the helper adenovirus vector by a repressor which binds to the repressor binding site contained in the helper adenovirus vector.
2. (previously presented) The method according to claim 1 wherein the repressor is COUP-TF.
3. (previously presented) The method according to claim 1 wherein the repressor is *lac* repressor.
4. (previously presented) The method according to claim 1, wherein propagating the helper adenovirus occurs in a first cell-line, and further comprising the additional steps of: transferring the virus particles to a second cell-line, and repressing packaging of the helper adenovirus vector in the second cell-line.
5. (previously presented) The method according to claim 1 wherein the repressing step occurs in the cell-line of step (d) and wherein the repressing step further comprises a step selected from the group of steps consisting of:
 - (a) endogenously expressing the repressor; and
 - (b) transfecting a vector expressing the repressor.

6. (previously presented) A helper adenovirus vector comprising an adenovirus packaging sequence containing a plurality of COUP-TF binding sites comprising an A repeat VI element.
7. (previously presented) A helper adenovirus vector comprising an adenovirus packaging sequence having at least two copies of 5'-TTTGN₈CG-3'(SEQ ID NO:1) and a plurality of COUP-TF binding sites comprising an A repeat VI element.
8. (original) An adenovirus vector according to claims 6 or 7 further comprising a heterologous gene for expression in a host.
9. (previously presented) A method of administering a replicant defective adenovirus to a mammal comprising the steps of:
- (a) packaging a DNA delivery adenovirus vector according to the method of claim 1;
 - (b) isolating the packaged DNA delivery adenovirus vector;
 - (c) preparing the packaged DNA delivery adenovirus vector in a pharmaceutically acceptable carrier; and
 - (d) administering the prepared and packaged DNA delivery adenovirus vector to said mammal.
10. (previously presented) A helper adenovirus vector comprising a packaging signal sequence consisting of at least two copies of 5'-TTTGN₈CG-3'(SEQ ID NO:1) and an A repeat VI element, wherein a repressor binding site flanks the packaging signal sequence.
- 11-12. (cancelled)
13. (previously presented) The helper adenovirus vector according to claim 10 wherein a repressor binding site alternates with the packaging signal sequence.
14. (previously presented) The helper adenovirus vector according to claim 10 having 3-12 copies of the packaging signal sequence.
15. (previously presented) The helper adenovirus vector according to claim 14 wherein a repressor binding site is located between packaging signal sequences.
16. (previously presented) The helper adenovirus vector according to claim 15 wherein the repressor binding site is a *lac* repressor binding site.

17. (previously presented) The helper adenovirus vector according to claim 15 wherein the repressor binding site is a E2F binding site.

18. (original) An adenovirus vector according to claim 10 further comprising a heterologous gene for expression in a host.

19. (previously presented) A method of administering a replicant defective adenovirus to a mammal comprising the steps of:

- (a) packaging a DNA delivery adenovirus vector comprising the steps of:
 - (i) obtaining a helper adenovirus vector containing a first adenovirus packaging sequence comprising a repressor binding site;
 - (ii) obtaining a DNA delivery adenovirus vector comprising 5' and 3' inverted terminal repeats; a second adenovirus packaging sequence; a heterologous gene; and a promoter operatively linked to the heterologous gene;
 - (iii) propagating the helper adenovirus vector and the DNA delivery adenovirus vector in a cell-line; and
 - (iv) repressing packaging of the helper adenovirus vector by a repressor which binds to the repressor binding site contained in the helper adenovirus vector;
- (b) isolating the packaged DNA delivery adenovirus vector;
- (c) preparing the packaged DNA delivery adenovirus vector in a pharmaceutically acceptable carrier; and
- (d) administering the prepared and packaged DNA delivery adenovirus vector to said mammal,

wherein step (a) is conducted with a helper adenovirus according to any one of claims 6, 7 and 10.

20-37. (cancelled)

38. (currently amended) The method according to claim 4, wherein the repressing step further comprises a step selected from the group of steps consisting of:

- (a) endogenously expressing the repressor; and
- (b) transfecting the second cell-line with a vector expressing the repressor.